



LINN COUNTY
SECONDARY ROAD DEPARTMENT
YEAR IN REVIEW
2022

LETTER FROM THE ENGINEER

Welcome to the 2022 Year in Review for the Linn County Secondary Road Department!

Looking back at 2022, we were spared the typical weather-related challenges we are so used to. While it isn't always apparent to our external customers, times like these are when our ability to come together as a team is most noticeable. The Secondary Road Department team came together in 2022 to make significant progress in many key areas:

- Created a department strategic plan to establish goals and objectives designed to fulfill our mission of "Make Good Roads with Good People"
- Established a more sustainable fleet management approach
- Improved the approach for traffic sign maintenance and operations to ensure compliance and safety
- · Continued to focus on operational activity key metrics to support data-driven decision making
- Developed a snow route completion dashboard to assist in optimizing route coverage and efficiency
- Invested further and expanded our brush/tree/noxious weed spray program to promote safety and compliance while providing benefits to the environment

The positive momentum of many of these initiatives will help get 2023 started down the right path. I look forward to being a part of our upcoming work and am appreciative of the great team we have at the Secondary Road Department.



Brad Ketels Linn County Engineer

Every year, the team of Secondary Road employees creates products that work toward the common goal: Make Good Roads with Good People. Maintaining and managing assets including bridges, culverts, rock roads, paved roads, roadsides, equipment, and signs would not be possible without the most important asset - our people!

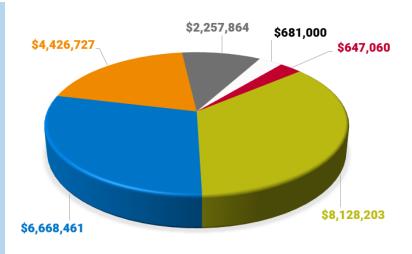
A knowledgeable and experienced team collaborates to align department activities with the Linn County mission of providing all customers the most satisfying products while maintaining sound fiscal management in order to enhance the quality of life in Linn County.

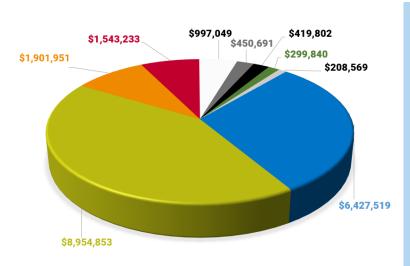
BUDGET OVERVIEW

Residents often ask, how much does the Secondary Road Department receive from property taxes? Property taxes paid for a property assessed at \$200,000 in rural Linn County is approximately \$3,000, of which \$303 (10%) of that goes to the Secondary Road Department. For perspective, the \$303 pays for just over one load of rock. The Board of Supervisors transfers the maximum amount allowed to the Secondary Road Department through property taxes. These transfers are known as the General Fund Transfer and Rural Fund Transfer.

FY22 REVENUE SOURCES

- Road Use Tax Fund (RUTF): \$8,128,203
- Tax Levy: \$6,668,461
- Local Option Sales Tax (LOST):
 - \$4,426,727
- Farm-to-Market (FM): \$2,257,864
- Highway Bridge Program (HBP): \$681,000
- Regional Planning Affiliation (RPA) for Region 10: \$647,060





FY22 TOP EXPENDITURES

- Contract Construction: \$8,954,853
- Salary and Benefits: \$6,427,519
- Rock: \$1,901,951
- Maintenance: \$1,543,233
 - Equipment Operations/Parts: \$997,049
- Dust Control: \$450,691
- Seal Coat and Patch Materials: \$419,802
- New Equipment: \$299,840
 - Snow and Ice Material: \$208,569

ROAD & BRIDGE IMPROVEMENTS

The Linn County Secondary Road Department is responsible for just over 1,150 miles of roads and 255 bridges. Iowa Code 309.22 requires counties to create a five-year construction program each year by April 15. The road construction program includes a list of projects to accomplish in the upcoming fiscal year and a project priority list for the next four fiscal years.

The current road construction program focuses on the bridge system and preserving the condition of the paved road network. A copy of the current five-year program can be found at LinnCountylowa.gov/Engineer.

Linn County crews complete the majority of the plans, project inspection, and related project documentation required for these projects. A summary of the projects completed in 2022 can be found below.

2022 TOTAL CONTRACT CONSTRUCTION COST

A total of \$14 million was spent in 2022 on the following projects:

- 2.6 miles of asphalt paving
- 3.4 miles of concrete paving
- 5 miles of grading and rock overlay
- 5 bridge replacements
- 76.5 miles of pavement markings

- 2 bridge deck overlays
- 1.5 miles of profile grinding
- 1 traffic signal installation (administered by the City of Marion)



Mount Vernon Road Bridge



Bridge 1427 on Sawyer Road



Lefebure Road

Sign up for construction notifications at LinnCountylowa.gov/NotifyMe.

ROADSIDE

ROADSIDE BY THE SEASONS

Work on Linn County roadsides is done seasonally for optimal results and for the continuance of healthy roadside environments for both plants and animals. Here is a snapshot of the work done each year:

Spring

- Plant natives
- Cut brush, including things hanging over the road or causing sight issues
- Prescribed burnings

Summer

- Spray noxious weeds and brush
- Cut brush, including things hanging over the road or causing sight issues
- Mowing

Fall

- Plant natives
- Cut brush, including things hanging over the road or causing sight issues
- Finish spraying noxious weeds and brush

NATIVE PLANTINGS IN RIGHT-OF-WAY AND ROUNDABOUTS

Residents frequently ask why there are native plantings in the right-of-way along roads or in the middle of a roundabout, instead of them being mowed. Here are a few reasons why native plantings are used:

- Provides low-maintenance weed and erosion control
- Reduces surface runoff and erosion by improving infiltration
- Reduces snow drifting and winter glare
- Ensures sustainability by increasing species diversity
- · Beautifies the landscape by providing ever-changing color and texture throughout the year
- Provides filtering and capture of nutrients, pesticides, and sediment
- Native plants are durable, long-lived perennials well-adapted to lowa's climate and growing season
- Extensive roots and decaying foliage increase storm water infiltration by adding organic matter to the soil, making it spongier and more absorbent.
- Native roadside plantings provide valuable habitat for songbirds, game birds, small mammals, and pollinators.







BERTRAM "BLUE" BRIDGE PROJECT

In 2022, the Linn County Secondary Road Department started the Bertram Bridge replacement and relocation project. The Bertram Bridge, also known as the Blue Bridge, relocation project includes replacing the current 146-year-old bridge with a new IDOT standard concrete beam bridge that will be able to carry legal loads (80,000 pounds or less) and relocating it to the Indian Creek Nature Center where it will be used on their trail system. Due to the existing truss bridge being a registered historic structure, the Linn County Historic Preservation Commission is participating in this project with the Secondary Road Department and Indian Creek Nature Center to ensure the bridge is preserved and properly signed in its new home.

The bridge project started at the beginning of November 2022 with tree and brush clearing. The contractor is now working on constructing the substructure for the new bridge and will start construction on the superstructure in the spring. The existing bridge will be relocated to its new home at the Indian Creek Nature Center in May or June 2023 and the project is scheduled to be completed in August 2023.

HISTORY OF THE BRIDGE

The Bertram Bridge was built in 1876 by the Wrought Iron Bridge Company (WIBCo) using a design patented in 1876 and was presumably one of the first bridges to use the new design. WIBCo's patented design was a variation of a standard Pratt truss configuration, employing double-intersecting counter members radiating outward from the center of the span. This early wrought-iron truss features four timber stringer spans at its north approach and is supported by a combination of stone and timber abutments. With no alterations on record, this bridge continued to serve vehicle traffic until 2022 at 146 years old.



Bertram "Blue" Bridge

DID YOU KNOW?

The Linn County Secondary Road Department will provide updates throughout this project. Sign up to receive text or email updates on the Bertram Road Bridge Replacement Project under the Alert Center on the NotifyMe page. You can also watch the project progress via a livestream on our website LinnCountylowa.gov/Engineer.



SERVING OUR CUSTOMERS

Work completed by Linn County Secondary Road crews benefits more than the residents and taxpayers of Linn County. While this group may represent a majority of the customer base, work completed also benefits other jurisdictions, emergency services, visitors, and others who use the secondary road system throughout Linn County. From beginning to end, the goal is to provide a satisfying experience for all.

The Linn County Secondary Road Department uses a work request system to assist with addressing customers' needs and concerns regarding the road system. In 2022, the department received 862 work requests and responded to 85.8% of these requests within 24 hours.

TOP WORK REQUESTS

54

Illegal dumping responses

132

Traffic sign or 911 sign requests/repairs

202

Road condition requests

53

Dead deer responses

45

Snow and ice responses

63

Dust control requests

139

Ditch mowing/brush cutting/drainage requests

Please call 319-892-6400 or email Engineer@LinnCountylowa.gov to submit a work request.

SAFETY & TECHNOLOGY

TECHNOLOGY & DATA COLLECTION

The Linn County Secondary Road Department increases our use of data and the amount of data we collect each year to improve the road system. In 2022, the department purchased a new software, Road AI, which analyzes pavement conditions through a smartphone app mounted on the windshield of any vehicle. The software recognizes cracks, potholes, and more. With the data collected, it provides a single numerical rating of the overall condition of the road called a pavement condition index (PCI). The resulting PCI data is used for strategic decision making. The data collected will be used in conjunction with data received every two years from the Iowa DOT. The Road AI software provides the flexibility to reliably obtain data on all Linn County roads as often as needed, which in turn improves the efficiency of the department.



A phone using the Road AI app to track conditions.

PUBLIC OUTREACH & COMMUNICATION

Linn County is committed to providing informative and timely updates to the public through a variety of ways, including digital platforms and more traditional means. Road construction and maintenance is consistently one of the most popular engagement topics with residents. In 2022, text and email updates were regularly sent to subscribers to keep them up to date on our road work projects. Our Facebook post announcing the relocation of the Bertram "Blue" Bridge reached almost 10,000 people. We distributed more than 30,000 copies of our bi-annual Routes Newsletter directly to residents in the unincorporated areas via the Penny Saver. Our website continues to be the information hub where we provide our annual and five-year construction plans, snow removal routes, policies and permits, an interactive road closure map, and more. Visit Linn County's website today and sign up for updates at LinnCountylowa.gov.

BY THE NUMBERS

The administration side of the Linn County Secondary Road Department plays a huge role in achieving our mission to Make Good Roads with Good People. The activities and numbers listed below provide an overview of what goes on behind the scenes at the Road Department.

FY22 PERMITS ISSUED

92

Utility Permits

355

Entrance Permits

144

Trip Permits

228

Annual Trip Permits

412

Dust Control Permits

82

Work in ROW Permits

51

E-911 Permits

1

No Spray Permit

9

Adopt-A-Roadside Permits

CONTRACTS

100

Rock Contracts

39

Purchase Order Contracts

DATABASE ENTRIES

1,031

Loads of Rock Hauled and Applied to Roads

3,189

Claims

Line items processed for payment

890

Receipts

Line items processed for deposit

AGREEMENTS

6

Property Owner Agreements

52

Zoning Agreements

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